

Peru: Environment and Natural Resources Survey With a Gender Focus

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One of the most biologically diverse countries in the world, Peru is blessed with an abundance of natural resources. However, there is a critical need for sound stewardship of these resources in light of high rates of deforestation, agricultural land degradation, and air and water pollution resulting from improper disposal of industrial and household waste. In response, USAID/Peru established a Strategic Objective in 1995 on "Improved Environmental Management in Targeted Sectors." The five Intermediate Results identified to meet this objective are:

- Institutional capacity of the government of Peru and private sector strengthened;
- Public support for environmental improvements mobilized;
- Innovative technologies tested through pilot projects;
- Cost-effective sustainable practices adopted; and
- Sound policies established and effective legislation enacted.

To mobilize public support for environmental improvements, USAID/Peru first needed to survey the level of public understanding of environmental and natural resource problems related to water, air, flora and fauna, soil, and protected areas. It also needed to determine the public's perceptions of the effectiveness of remedial actions taken to improve resource management.

Cuanto Institute, a Peruvian research firm, conducted the first public opinion survey on the environment and natural resources in 1996. A year later,

Jamie Elizabeth Jacobs of the University of Florida conducted a multivariate analysis on the survey data to better understand the relationships between environmental problems and socioeconomic and demographic variables, including geographical region, income, education, age, and gender. In 1997, the Cuanto Institute carried out a second survey using a similar format and methodology as the first survey. The survey questionnaires and data were disaggregated by sex in both surveys.

In September 1998, USAID/Peru requested WIDTECH assistance to provide an in-depth gender analysis of the data produced in these surveys and to design a public presentation of the survey results directed to mass media, policymakers, government officials, scholars, business people, nongovernmental organizations (NGOs), and the general public.

GENDER AND THE ENVIRONMENT

Environmental issues are now recognized as social issues—issues that often demand local solutions derived from community initiatives. Such an approach acknowledges an interaction between the environment and resource use on the one hand and political, economic, and social forces on the other. It also recognizes interdisciplinary links between nutrition and environmental degradation; democratic systems and resource management; and education and an improved environment. Gender is central within the community-based approach because it demonstrates how societies are organized and, in turn, how they relate to their environment. In particular, the community-based approach:

- Builds on the vital roles women and men play in understanding and managing the environment

that surrounds them in both rural and urban settings;

- Encourages environmental decision-making, leadership, and participation of both men and women within the civil society so that they can better serve as advocates for environmental issues of concern to them, their families, and their communities;
- Develops strategies for resource management based on democratic principles, participatory techniques, and an understanding of how gender shapes the access to, the participation in, and the agenda of collective activities affecting the environment; and
- Addresses specifically the economic, social, institutional, and legal constraints to women's effective management of natural resources.

GENDER REVIEW OF THE PUBLIC OPINION SURVEY

Construction of the Survey

The public opinion survey was designed to measure men's and women's understanding of environmental problems and their perceptions of the effectiveness of the methods used to improve the quality of natural resources in a variety of geographic areas in Peru. Women respondents were consciously included in the survey according to quotas, although the quota numbers were not included in the report.

Income level was included to determine socioeconomic status of the survey respondents. Measuring status using an income scale tends to produce a male bias. Men will generally have a higher socioeconomic status because Peruvian women earn, on average, 46.3 percent less than men. However, characteristics of the living area also were used to measure social status, which helps to eliminate the male income bias. The survey also asked for "head of household." Respondents will most likely name a male family member, perhaps skewing the survey in favor of male responses.

Recommendation. There is now good guidance on avoiding gender bias in survey design. Those constructing surveys need to be aware of this literature.

Links to Other National Issues

The survey highlighted the interaction of environment and education. Compared with men, women know less about environmental problems; however, the difference disappears when education is taken into account. Therefore, supporting the education of women and girls also supports environment objectives. The survey also highlighted the interaction of democracy and governance with environmental issues. A number of survey respondents thought either the local government (25 percent) or the communities themselves (23 percent) should act to protect the environment, while 25 percent of the respondents thought "we are all guilty" of the damage being done to the environment. In her analysis of the data, Jamie Jacobs mentions that in countries which have not fully consolidated democratic institutions, environmental movements have at times been a means for democratic expression.

Recommendation. Encouraging close ties among education, democracy and governance, and environment activities—focusing particularly on community participation and women's education—is important to environmental protection.

Gender Differences

The survey results show that with the exception of water, women have less knowledge of the environment than men. Often those who know the least are rural women over 50 years old with the least education. Both men and women know the least about soils, flora and fauna, and protected areas. When disaggregated by sex, women consistently know less than men in all of these areas. The gender gap is the greatest in the area of flora and fauna.

Recommendation. Donors and NGOs need to make a special effort to close the gender gap. A first step is to document how many men and how many women

receive technical assistance and training related to environment issues. A second step is to ensure that women participate equally in such technical assistance and training programs.

Bringing Environmental Problems Home

Nearly 60 percent of both men and women understand the problems of water pollution. In one analysis, the only scale where women show more knowledge and awareness than men was on water contamination. Because women must provide for their households and families, water is central to their lives. Aside from water, both men and women have the most awareness and knowledge about air pollution. Both air and water have a direct impact on people's everyday lives. Consequently, people name as the top three priorities combating water pollution, air pollution, and public litter.

In contrast to water and air, there are two survey scales where women know significantly less than men: (1) knowledge of measures taken to improve the environment and (2) identification of practices that reflect a sound use of natural resources. This is not surprising since women are less mobile than men and take part less often in public forums on programs to improve the environment.

Recommendation. The centrality of environmental problems to the lives of both men and women should be reflected in resource allocations, media presentations, and environmental education materials.

The Rural-Urban Split

In all the themes dealt with in the survey, rural people, both men and women, had less knowledge than urban people. The lack of knowledge and awareness is particularly acute for rural women over 50 with little schooling. These findings on the rural-urban split are intuitively intriguing because of the extensive literature on the importance of indigenous knowledge, particularly among rural people, about conservation and environmental protection. It may be that the survey has biases toward those who live in urban areas and those with a formal education.

Recommendation. The format and structure of the survey should be reviewed for biases toward those who live in urban areas and those with a formal education. In addition, complementing the national public opinion survey with periodic rapid participatory appraisals can better capture the environmental knowledge of rural peoples, both men and women. Such participatory methods include key respondent interviews with men and women, gender mapping (depicting the landscape in terms of men's and women's labor and their access and control over natural resources), seasonal work of both men and women, and in-depth household interviews and community time lines that detail the change in the resource base over time. Research with these methods shows that men, women, and children confront the deterioration of natural resources and mounting land pressures with different strategies. These strategies are not captured in a formal survey.

PUBLIC PRESENTATION OF SURVEY RESULTS

To mobilize public support for environmental improvements, WIDTECH recommended that USAID/Peru present survey results to the media to "get the message out" through a national press conference where selected policymakers, scholars, businesspeople, and government and nongovernment personnel also would be invited. Care would be taken to invite equal numbers of men and women. In addition, community-based presentations were recommended to highlight the involvement of individuals and communities in environmental protection.

Core Messages from the Survey

The men and women of Peru recognize the urgency of environmental problems. In the 1998 survey, 86.3 percent of men and 83.9 percent of women think that protecting the environment and fighting against pollution are urgently needed.

The most effective measures to address environmental problems are those close to the community and the home. The top three environmental problems identified by survey respondents are the contamination and poor use of water, air

pollution, and public litter. People find the most effective methods to deal with these problems are disinfecting drinking water and collecting garbage by households. Methods deemed the least effective are legislative measures to protect the environment because the common perception is that they are never put into practice.

Implementation Strategies for Improved Environmental Protection

Implement cost-effective measures in the home and community. Given that close to 50 percent of the Peruvian population lives in poverty, any measures to overcome environmental problems that cost more money will not be acceptable to the majority of the population. Any training and technical assistance that USAID/Peru provides to its partners on environmental issues needs to emphasize that household and community-based conservation and environmental protection are critical to sustainable management of natural resources.

Emphasize environmental education in support of environmental protection. Environmental education at policy, institutional, and field levels needs to emphasize the participation of people themselves in solving environmental problems. Educational materials must directly engage men and women at the local level by reflecting the value of

their work inside and outside the home in managing natural resources and combating pollution. Legislative measures should support these local initiatives.

Pay explicit attention to women and the environment. Women knew considerably less than men on all the scales measured by the survey except for water in the 1996 survey and air in the 1997 survey. Therefore, women must receive technical assistance, training, and environmental education to close the gap.

Link the environment with other sectors. The survey results showed that formal education made a significant difference in reducing the gap in environmental knowledge between men and women. Besides education, USAID/Peru should also link the environment with democracy and governance objectives by emphasizing local initiatives to solve environmental problems. It is widely recognized that grassroots environmental movements attract women and serve as opportunities for leadership training for both men and women.

Develop a simple, understandable message on gender. An example of such a message is: "Working on Solutions to Environmental Problems Depends on the Involvement of All People. Effective Involvement Includes Explicit Attention to the Participation of Both Men and Women."

WIDTECH supports innovative approaches to technical assistance and training that take into account women's roles and contributions and enhance the effectiveness of USAID's development assistance.

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